

IN THE SPECIFICATION:

Please amend paragraph [0008] as follows:

--[0008] It ~~is turned~~ turns out that this phenomenon ~~occurs from a causation that the is~~ caused by an immobilized ~~brush~~ brush serving as the developing agent charging amount controlling means ~~is~~ being positioned continuously at a fixed location on the photosensitive body. That is, where the developing agent charging amount controlling means operates with irregular resistance, overcharging or inadequate charging always occurs at the same location on the photosensitive body. At the charged portion, ~~the problems on of~~ localized overcharging or melting of the remaining developing agent image may occur. At the inadequate charging portion, the contact charging member may get dirty due to attachment of the developing agent because the remaining developing agent image cannot be charged adequately.--

Please amend paragraph [0009] as follows:

--[0009] According to various recent ~~various~~ needs ~~on the of~~ of users, the above problems are further raised because ~~the a large~~ a large remaining developing agent image ~~in a large amount tend to occur at a time from~~ occurs as a result of a continuous printing operation of high printing rate ~~images images,~~ such as photographic images or multiple developing methods on the photosensitive body in association with rendering the images ~~multicolored~~ in multiple colors.--

Please amend paragraph [0010] as follows:

--[0010] As a similar case, ~~there raises a case that~~ particles such as ~~dusts~~ dust, floating developing agents, and charged products may attached onto a roller surface ~~according to use of~~

after a long period of use because the charging roller used as a charger for the photosensitive body rotates in contact with the photosensitive body. It is to be noted that Japanese Patent Application Publication 2001-215,799 discloses that a developing agent charging amount controlling means as the charger is moved reciprocally in the longitudinal direction of the photosensitive body, but a proper electric contact member is sought to apply a stable voltage to the developing agent charging amount controlling means moving reciprocally.--

Please amend paragraph [0020] as follows:

--[0020] Each of the process cartridges 1Y, 1M, 1C, 1K is constituted in a united body by arranging the charging means and the developing means around the photosensitive drum 2. The process cartridge can be detached easily by the user with respect to the apparatus body, and when the photosensitive drum 2 reaches the ~~duration~~ end of its life, the process cartridge is replaced. In this embodiment, e.g., where the rotation number of the photosensitive drum 2 is counted up and where the counted number exceeds the prescribed count number, it is ~~formed~~ determined that the process cartridge reaches the duration.--

Please amend paragraph [0025] as follows:

--[0025] As shown in Fig. 2, the charging roller 3a holds the opposite ends of a metal core ~~metal~~ 3b as to be rotatable by bearings, not shown, and urges the ends by pushing springs 3d toward the photosensitive drum direction to contact with pressure to the surface of the photosensitive drum 2 with a prescribed pushing force, thereby ~~rotating in driven~~ being driven to rotate by the rotation of the photosensitive drum 2.--

Please amend paragraph [0027] as follows:

--[0027] An arm portion 3f1 is formed at one end of the supporting member 3f2, and the arm portion 3f1 is in contact with a cam portion 16b of a cam gear unit 16 by being urged by a charging sheet returning spring 30 formed at the other end. Where rotational drive is transmitted to a coupling 15 by a drive means, not shown, from the exterior, the drive is transmitted from the coupling gear portion 15a to a cam gear 16a of the cam gear unit 16, thereby rotating the cam portion 16b. The surface of the cam portion 16b is inclined with respect to the rotary shaft, and the arm portion 3f1 moves along the surface when the cam portion 16b rotates, thereby converting the rotational drive to the reciprocal movement and rendering the supporting member 3f2 ~~move~~ reciprocally movable in the longitudinal direction of the charging roller 3a. This ~~renders~~ causes the cleaning film 3f3 to rub the surface of charging roller 3a, thereby removing attachments (e.g., fine particle developing agent, additives) on the surface of the charging roller 3a.--

Please amend paragraph [0030] as follows:

--[0030] Since the remaining developing agent image on the surface of the photosensitive drum 2 passes through the exposing section b, the exposing step is done over the remaining developing agent image, and because the amount of the remaining developing agent image is small, a large influence does not appear. The remaining developing agent image contains a normal polarity agent, a reverse polarity agent (reverse developing agent), and an agent having a small charging amount, and when the reverse developing agent and the agent having the small charging amount pass through the charging section a, the agents are adhered to

the charging roller 3a, thereby ~~getting~~ rendering the charging roller 3a dirty more than the permissive amount and thereby inflicting charging ~~defects~~ defects.--

Please amend paragraph [0034] as follows:

--[0034] By ~~forming~~ using the remaining developing agent image unifying ~~mean~~ means, even where the remaining developing agent image on a pattern on the photosensitive drum carried from the transfer portion d to the remaining developing agent charging amount controlling means has a large amount of the developing agent, the developing agent is dispersed on the surface of the photosensitive drum and does not make any pattern. The developing agent therefore does not ~~concentrates~~ concentrate locally at any part of the remaining developing agent charging amount controlling means, so that normal polarity charging processing of the remaining developing agent image as a whole is done adequately by the remaining developing agent charging amount controlling means, thereby preventing the remaining developing agent image from clinging to the charging roller 3a effectively. In addition, this also prevents any ghost image of the remaining developing agent image pattern from occurring.--

Please amend paragraph [0038] as follows:

--[0038] The reciprocal movement of the brush unit 3j is substantially the same as the charging roller cleaning unit 3f, and the rotational drive is transmitted from a body coupler, not shown, to a coupling 15 formed at the developing apparatus and further transmitted from a coupling gear portion ~~15~~ 15a integrally formed to the coupling 15 via the cam gear 16a to the cam portion 16b. The cam portion 16b is arranged so that a reciprocal movement transmission

arm 14 secured to an end of the brush supporting member 12 is located at the cam portion 16b, and by engaging the cam portion ~~16a~~ 16b with a protrusion 14a of the transmission arm 14 the rotational drive at the cam portion ~~16~~ 16b is converted to reciprocal movement, thereby moving reciprocally the brush unit 3j in the longitudinal direction of the charging roller 3a. In this embodiment, the unit moves reciprocally with 5 mm stroke and a constant period in a range of about 0.5 to 2.5 seconds. It is to be noted that as shown in Fig. 6, the cam portion ~~16~~ 16b may be urged by using a returning spring 31, but as shown in Fig. 8, a protrusion ~~14~~ 14a may be made to slide where a groove or grooves are formed at the cam portion ~~16~~ 16b.--

Please amend paragraph [0040] as follows:

--[0040] [Exposing Apparatus] In this embodiment, as shown in Fig. 1, exposure to the photosensitive drum 2 is done using the laser exposing apparatus. That is, when an image signal is sent from the apparatus body, laser beam ~~E~~ L, modified corresponding to the ~~signal~~ signal, is scanned to ~~make perform~~ exposure on the uniformly charged surface of the photosensitive drum 2. An electrostatic latent image is selectively formed corresponding to the image information on the surface of the photosensitive drum 2.--

Please amend paragraph [0041] as follows:

--[0041] The laser exposing apparatus is constituted of, e.g., a solid laser device, not shown, a polygon mirror 51a, a convergence lens 51b, and a reflection mirror 51c. The solid laser device is controlled to be turned on and off as to emit and not to emit a beam with a prescribed timing from a light emitting signal generator, not shown, according to the inputted image signal.

The laser beam L ~~radiated~~ emitted from the solid laser device is converted to a substantially parallel beam flux by a collimator lens system, not shown, and is scanned by the polygon mirror 51a rotating ~~with~~ at a high rate. The beam is focused in a spot shape on the photosensitive drum 2 via the convergence lens 51b and the reflection mirror 51c.--

Please amend paragraph [0047] as follows:

--[0047] The developing step in which the electrostatic latent image formed on the photosensitive drum 2 is visualized using the developing apparatus 4 in the two-component magnetic brush method and a circulation system of the developing agent are described. According to the rotation of the developing sleeve 4a, the developing agent in the developing apparatus is conveyed upon being sucked up to the surface of the developing sleeve 4a at a sucking up pole of the magnet roller 4b. ~~During the midway of the~~ Midway during its conveyance, the developing agent is subject to a limitation on ~~the~~ its thickness by a the limiting blade 4c disposed perpendicularly to the developing sleeve 4a, thereby forming a thin layer of developing agent on the developing sleeve 4a. When the thin layer of developing agent is conveyed to the developing pole corresponding to the developing portion, ~~standing-upright phenomenon like ears~~ a standing-upright phenomenon, like ears, is formed by magnetic force. The electrophotographic latent image on a surface of the photosensitive drum 2 is developed as a developing agent image with the developing agent in the developing agent thus formed standing upright in an ear shape. In this embodiment, the electrophotographic latent image is reverse developed.--

Please amend paragraph [0049] as follows:

--[0049] Generally, with the two-component developing method, the developing rate increases by application of the alternative current voltage to render the images of a high quality, but ~~there~~ this raises ~~risks~~ the risk that blurring tends to occur easily. Therefore, in general, prevention of blurring is realized by providing a potential difference between the DC voltage ~~applying~~ applied to the developing sleeve 4a and the surface potential of the photosensitive drum 2. More specifically, a bias voltage is applied which is at a potential between the potential of the exposure portion of the photosensitive drum 2 and the potential of the non-exposure portion.--

Please amend paragraph [0053] as follows:

--[0053] The screw rotates in a prescribed rotation direction according to the rotation of the drive coupling (male) 62b. The developing agent is conveyed toward the drain opening 5f, and is dropped off freely through the opening of the drain opening 5f to supply the developing agent in the process cartridge. The front end in the rotation radius direction of the stirring plate is ~~slant~~ slanted to contact with a certain angle ~~to~~ a wall of the developing agent supplying container when sliding on the wall. More specifically, by twisting and ~~slating~~ slanting the front end side of the stirring plate, a conveyance force toward the shaft direction is produced, thereby feeding the developing agent in the longitudinal direction.--

Please amend paragraph [0056] as follows:

--[0056] The primary transfer rollers 54fY, 54fM, 54fC, 54fK are disposed ~~as~~ rotatably at opposing positions to the photosensitive drums 2, respectively in contact with the intermediate

transfer belt 54a and ~~is~~ are pressed toward the center direction of each photosensitive drum 2.

The primary transfer rollers 54fY, 54fM, 54fC, 54fK are ~~electrically~~ fed with electricity from a high voltage power supply, not shown, and the developing agent on each photosensitive drum 2 is sequentially, primarily transferred on the top surface of the intermediate transfer belt 54a upon charging the belt ~~at~~ to the opposite polarity ~~to~~ from the developing agent from the back side of the intermediate transfer belt 54a.--

Please amend paragraph [0058] as follows:

--[0058] A cleaning unit 55 capable of contacting ~~to~~ and separating from the surface of the intermediate transfer belt 54a is arranged at a prescribed position of the intermediate transfer belt ~~54~~ 54a as a most downstream side of the transfer step, and removes the remaining developing agent image remaining after the secondary transfer step. A cleaning blade 55a is disposed in the cleaning unit 55 to remove the remaining developing agent image. The cleaning unit 55 is attached in a pivotally movable manner around a rotary center, not shown, and the cleaning blade 55a is in pressured contact with the intermediate transfer belt 54a in a strongly pressing direction. The remaining developing agent image taken in the cleaning unit 55 is conveyed to and stored in a waste developing agent tank, not shown, by a feeding screw ~~55b~~.--

Please amend paragraph [0062] as follows:

--[0062] [Attachment of Process Cartridge and Developing Agent Supplying Container]

Next, attachment steps of the process cartridge and the developing agent supplying container are described ~~in use of~~ by referring to Fig. 2, Fig. 3, and Fig. 4. As shown in Fig. 3, an



openable front door 58 is disposed on a front side of the apparatus body 100, and when the front door 58 is pulled to open, an opening for inserting the process cartridges 1 Y to 1K and the developing agent supplying containers 5Y to 5K is exposed. A core setting plate ~~59 rotatively supported~~ 59 that is rotatably supported, is disposed at the opening for inserting the process ~~cartridge + cartridge~~, and in a case where the process ~~cartridge + cartridge~~ is inserted or pulled out, this operation is to be done after releasing the core setting plate 59.--

Please amend paragraph [0063] as follows:

--[0063] As shown in Fig. 2, in the apparatus body 100, a guide rail 60 for guiding the attachment of the process ~~cartridge + cartridge~~, and a guide rail 61 for guiding the attachment of the developing agent supplying container 5 are secured. The attachment direction of the process ~~cartridge + cartridge~~ and the developing agent supplying container 5 is a direction parallel to the axial direction of the photosensitive drum 2, and the guide rails 60, 61 are disposed in substantially the same direction. The process ~~cartridge + cartridge~~ and the developing agent supplying container 5 are inserted ~~as at~~ once sliding from the front side to the rear side in the apparatus body 100 along the guide rails 60, 61.--

Please amend paragraph [0064] as follows:

--[0064] As shown in Fig. 4, when the process ~~cartridge + cartridge~~ is inserted to the rearmost portion, a core setting shaft 66 of the apparatus body is inserted into a center hole 2f of the drum flange 2b, thereby setting the rotational center position on a rear side of the photosensitive drum 2 with respect to the apparatus body. At the same time, the drive

transmission portion 2g formed at the drum flange 2b and the drive coupling (male) 62g 62a are coupled to allow the photosensitive ~~drum 1~~ drum 2 to be rotatably driven. The drive transmission portion 2g used in this invention is in a twisted triangular prism shape, to which the drive is transmitted by application of a drive force from the apparatus body, and generates a force pulling the photosensitive drum 2 rearward.--

Please amend paragraph [0065] as follows:

--[0065] A supporting pin 63 for positioning the process ~~cartridge 1~~ cartridge is disposed at a rear side plate 65, and the supporting pin 63 is inserted in a frame of the process cartridge, thereby securing the position of the frame of the process cartridge.--

Please amend paragraph [0066] as follows:

--[0066] ~~The~~ A rotatable core setting plate 59 ~~rotatable~~ is disposed on a front side of the apparatus body 100, and with respect to the core setting plate 59, the bearing casing 2c of the process ~~cartridge 1~~ cartridge is fixedly supported. According to the series of the insertion operations, the photosensitive drum 2 and the process ~~cartridge 1~~ cartridge are positioned with respect to the apparatus body 100.--

Please amend paragraph [0067] as follows:

--[0067] On the other hand, the developing agent supplying container 5 is secured to the supporting pin ~~64~~ 63 projecting from the rear side plate 65 when inserted up to the rearmost portion. At the same time, the drive coupling (female) 5e and the drive coupling (male) 62b are

coupled to each other, thereby allowing rotational ~~drive~~ driving of the screw 5a and the stirring shaft 5c.--

Please amend paragraph [0069] as follows:

--[0069] As shown in ~~Fig. 7, Fig. 7 and Fig. 8~~, as described above, the unifying brush 3g as an example of the remaining developing agent image unifying means as a charger, and the charging amount controlling brush 3h as an example of the remaining developing agent image charging amount controlling means as a charger are secured to the brush supporting member 12 in the charging unit 3 constituting a part of the process ~~cartridge + cartridge~~, and are disposed to be reciprocally movable as the brush unit 3j. The function of the non-cleaner system can be done by feeding stably from the apparatus body to the unifying brush 3g and by reciprocally moving the charging controlling brush 3h of the brush unit 3j ~~reciprocally movable~~.--

Please amend paragraph [0070] as follows:

--[0070] As shown in ~~Fig. 7, Fig. 7 and Fig. 9~~, feeding is ~~made~~ performed to the unifying brush 3g from the apparatus body via a first feeding plate 20, and a first feeding contact member 22 as a first ~~electrically~~ electrical contact member. In substantially the same way, feeding is ~~made to~~ performed the charging controlling brush 3h via a second feeding plate 21, and a second feeding contact ~~point~~ member 23 as a second ~~electrically~~ electrical contact ~~point~~ member. The first feeding plate 20 secured to the charging container 3k is fed by ~~the a~~ a power source as a voltage applying means formed at the apparatus body, and is connected to the first feeding contact member 22 at a contact point portion 20a (~~see, see~~ Fig. 9). The first feeding

contact ~~point~~ member 22 is connected to a contact point portion 3g10 (~~see~~, see Fig. 7), and feeding is made from the back surface of a metal plate base 3g1 to the unifying brush 3g. In substantially the same way, the second feeding plate 21 secured to the charging container 3k is fed by ~~the~~ a power source of the apparatus body, and is connected to the second feeding contact member 23 at a contact portion 21a (~~see~~, see Fig. 9). The second feeding contact member 23 is connected to a contact portion 3h10 (~~see~~, see Fig. 7), and feeding is made from the back surface of a metal plate base 3h1 to the charging controlling brush 3h.--

Please amend paragraph [0073] as follows:

-- [0073] To ~~recoup~~ solve this problem, as shown in Fig. 10, in this embodiment, a ring shaped elastic torsion spring 24 as a buffer ~~portion as~~ portion, which is an example of a buffering ~~mechanism~~ mechanism, is formed between the torsion spring 22a at the securing portion on the power source side and the coil spring 22b at the moving portion on the charger side in the first feeding contact member 22. In the second feeding contact member 23, a ring shaped elastic torsion spring 25 as a buffer ~~portion as~~ portion, which is an example of a buffering ~~mechanism~~ mechanism, is formed between the torsion spring 23a at the securing portion on the power source side and the coil spring 23b at the moving portion on the charger side.

Please amend paragraph [0074] as follows:

--[0074] It is to be noted that the buffering mechanism is not limited to the torsion spring and the coil ~~spring, a~~ spring. A member having an elastic shape with elasticity to the distance between the opposite ends of the feeding contact members 22, 23 may be used.

Accordingly, for example, a bending portion in a mountain shape, a wave shape, and a saw shape may be formed at an intermediate portion of the feeding contact members 22, 23, or a large curving between the opposite ends may take advantages of the invention though with a simpler structure.--

Please amend paragraph [0075] as follows:

--[0075] As described above, the electric contact member, the process cartridge, and the image forming apparatus according to the invention can buffer repetitive loads exerted to the electric contact member with a very simple structure but without inviting an increase of the ~~part~~ number of parts, thereby preventing the electric contact member from receiving ~~damages~~ damage or dropping off. Therefore, ~~surely~~ certain feeding can be ~~made to~~ performed to the remaining developing agent charging amount controlling means and the remaining developing agent image unifying means, so that charging defects or collection defects of the remaining developing agent can be prevented.--